

## **REMARKS**

Claims 1-4 are pending. By this Amendment, claim 1 is amended. No new matter is presented. Support for the amendments to claim 1 can be found on at least page 12, lines 5-10 and Fig. 4 of the specification as originally filed. Claims 1-4 are pending and respectfully submitted for consideration.

### **Rejection Under 35 U.S.C. § 103**

In the Office Action dated June 1, 2006, claims 1-4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,452,164 to Cole et al. ("Cole") in view of U.S. Patent No. 4,458,279 to Katz ("Katz"). Claims 2-4 depend from claim 1. As acknowledged in the Office Action, "Cole fails to teach a material used for the non-magnetic layer, which having an etching rate equal to or higher than the magnetic layers". See page 3, lines 11-12 of the Office Action. Also, as acknowledged in the Office Action, "Cole et al. modified by Katz, fail to disclose a material used for the first and second magnetic layers such as nitride containing iron (FeN)." See page 3, lines 20-21 of the Office Action.

Claim 1 recites a method for manufacturing a thin-film magnetic head in an inductive recording head part forming process, the method including, *inter alia*, a non-magnetic layer being made of a material having an etching rate, for the ion milling free from using a reactive gas, equal to or higher than that of a material of a first magnetic layer and a second magnetic layer.

The Office Action took the position that "the track width of the pole tip layers with the non-magnetic insulating layer of Katz as shown in Fig. 1 is the same... [t]herefore, the etching [rate] of the non-magnetic insulating layer of Katz could have the etching

rate at least equal with the magnetic material of the pole tips." (Emphasis added). See page 2, lines 7-10 of the Advisory Action. The Applicant respectfully submits that the Office Action assertion is misleading with respect to Katz.

As a preliminary matter, the Applicant respectfully submits that whether a reference could have a particular feature is not the standard by which obviousness is determined. Under U.S. patent practice, to establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. In re Vaeck, 947 F.2d 488 (Fed. Cir. 1991) (Emphasis added). See MPEP § 2143.01 (III) which states that the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination (citing In re Mills, 916 F.2d 680 (Fed. Cir. 1990)). Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." Id. at 682. See also MPEP § 2143.03, "[t]o establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." (Citing In re Royka, 490 F.2d 981, (CCPA 1974)). "All words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385 (CCPA 1970).

Moreover, according to MPEP § 2112 (IV), the fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. In re Rijckaert, 9 F.3d 1531, 1534 (Fed. Cir.

1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); In re Oelrich, 666 F.2d 578, 581-82 (CCPA 1981). “To establish inherency, the extrinsic evidence ‘must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. **Inherency, however, may not be established by probabilities or possibilities.** The mere fact that a certain thing may result from a given set of circumstances is not sufficient” (emphasis added). In re Robertson, 169 F.3d 743, 745 (Fed. Cir. 1999) (citations omitted). “In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original).

The Applicant respectfully submits that whether Katz could have a non-magnetic insulating layer with an etching rate at least equal with the magnetic material of the pole tip is not suggested in Katz or Cole, and therefore, does not meet the above-stated requirement for an obviousness determination.

The Applicant further submits that the allegedly inherent characteristic that the non-magnetic insulating layer of Katz could have an etching rate at least equal with the magnetic material of the pole tips because the “track width of the pole tip layers with the non-magnetic insulating layer of Katz as shown in Fig. 1 is the same”, as alleged in the Office Action, does not necessarily flow from the teachings of the applied prior art as set forth below.

When the non-magnetic insulating layer and the magnetic pole layers have a uniform track width, the non-magnetic insulating layer is not always made of a material having an etching rate equal to or higher than that of a magnetic material of the pole tips. See, for example, column 11, line 9 to column 12, line 60 of Kronubi et al. (U.S. Patent No. 5,438,747), cited in the Office Action dated November 16, 2005. Therefore, even if the non-magnetic insulating layer is made of a material having an etching rate *lower* than that of the magnetic material of the pole tips, the layers can be formed with a uniform track width. Thus, the Office Action assertion that a uniform track width exists because the etching [rate] of the non-magnetic insulating layer of Katz could have the etching rate at least equal with the magnetic material of the pole tips is incorrect.

In addition, Fig. 1 of Katz does not disclose or suggest that the track width of the pole tip layers with the non-magnetic insulating layer is the same. Fig. 1 of Katz merely discloses the second magnetic pole piece 26, but does not teach the track widths of the layers 16 and 12 lying below the second magnetic pole piece 26 are the same as that of the piece 26.

Therefore, one of ordinary skill in the art would not look to the Katz reference to teach a non-magnetic insulating layer made from a material having an etching rate equal to or higher than that of a magnetic material of the pole tips, as recited in claim 1.


### **Conclusion**

The Applicant respectfully submits that this application is in condition for allowance and such action is earnestly solicited. If the Examiner believes that anything further is desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicant's undersigned representative at

the telephone number listed below to schedule a personal or telephone interview to discuss any remaining issues.

In the event this paper is not considered to be timely filed, the Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing Attorney Dkt. No. 100186-00020.**

Respectfully submitted,



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RLB/wbp

Enclosures: Request for Continued Examination  
Petition for Extension of Time (one month)  
Request for Examiner Interview